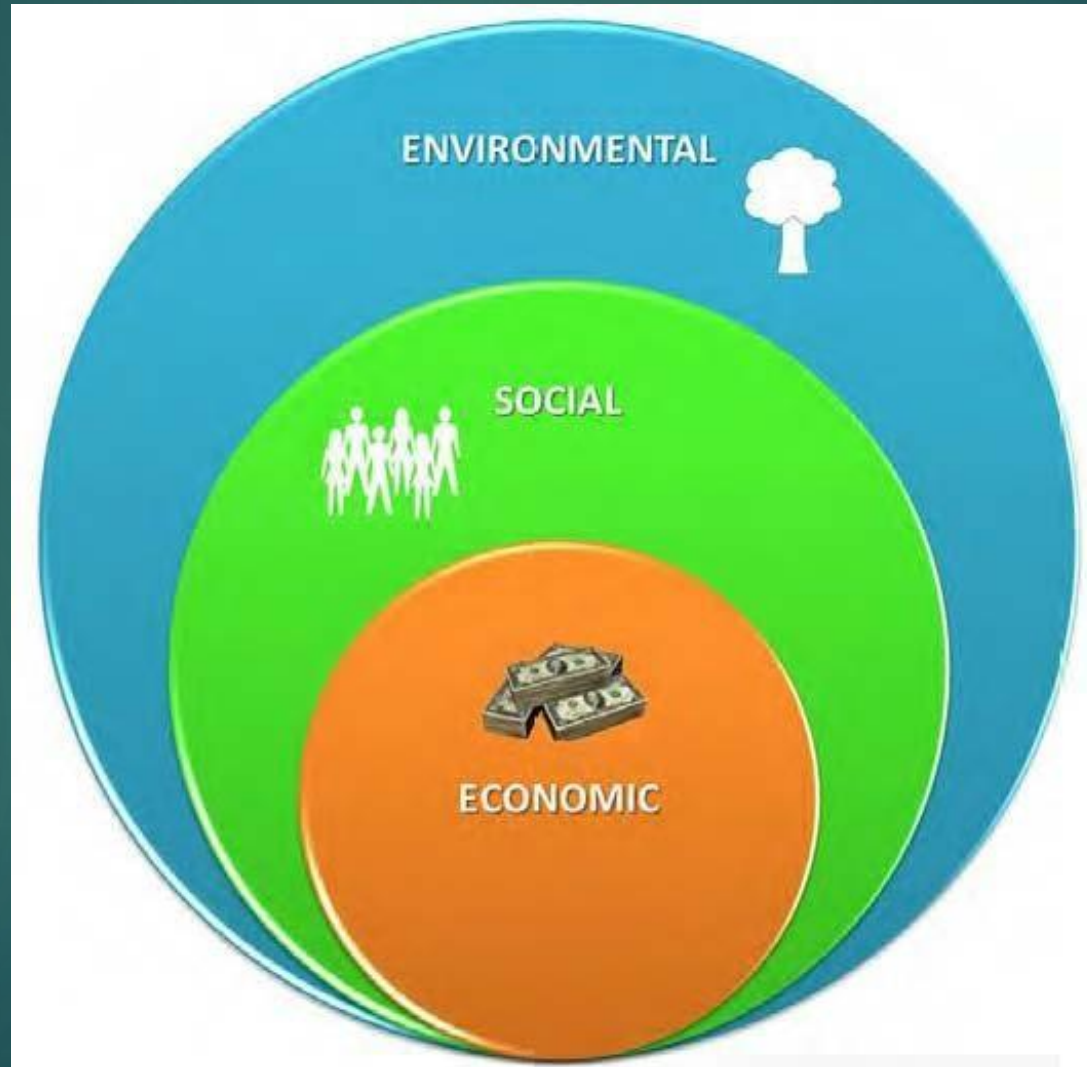




Environmental Services Investment & Offset Bonds

CONSERVING THE WORLD'S HIGH CONSERVATION
VALUE AREAS IN PERPETUITY

Nature provides services worth \$trillions annually to the world



Some services provided by the natural world

Climatic
regulation

Atmospheric
gas balance

Water
purification &
regulation

Air
purification

Carbon capture
&
sequestration

Bio-
pharmaceutic
als

Pest control

Erosion
protection

Shelter, livelihoods,
water, fuel, and food
security for 1.25
billion forest people

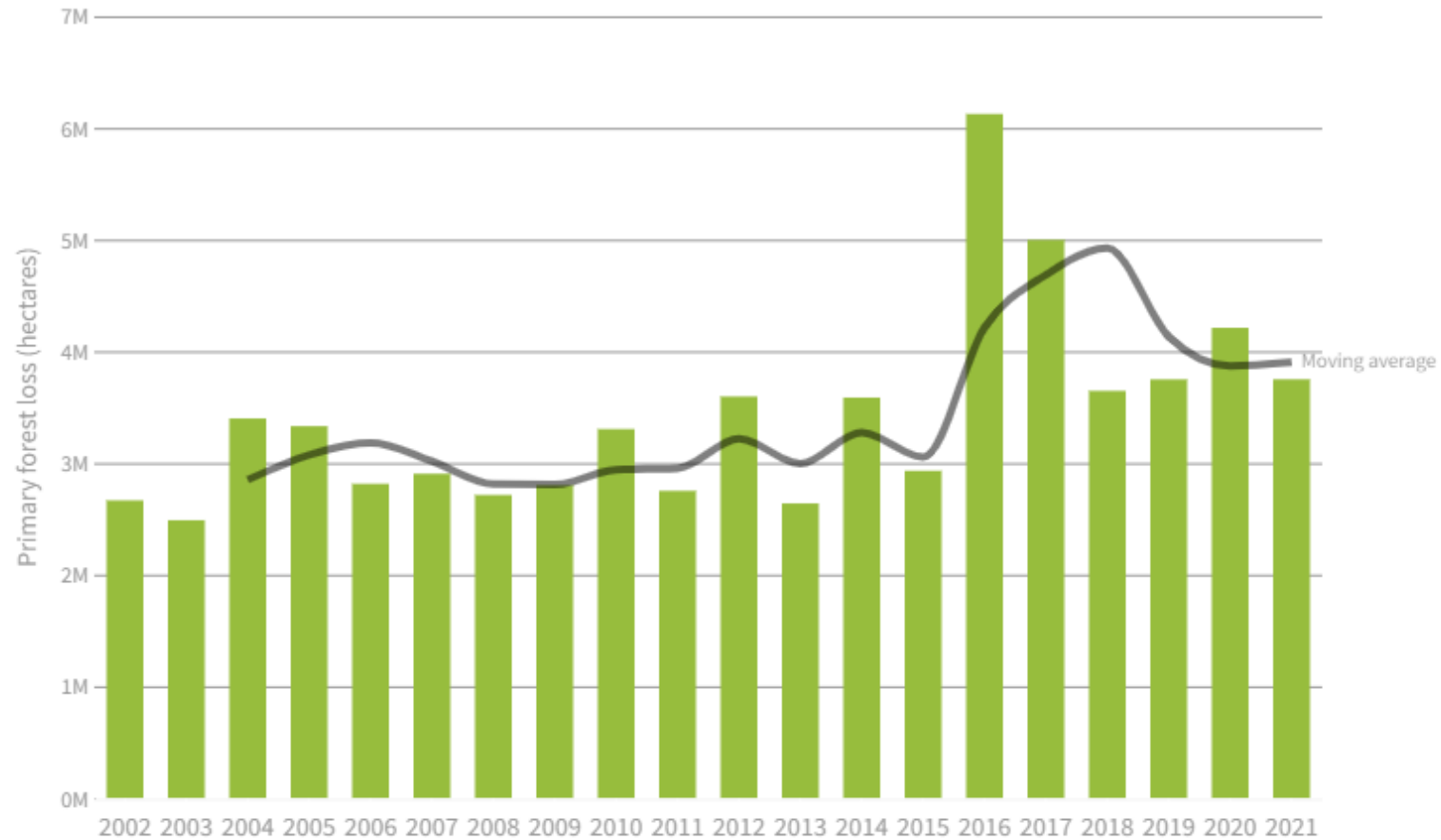
Bio-mimicry
innovation

Maintaining
biodiversity

Pollination

UNDIMINISHED FOREST DESTRUCTION

Tropical primary forest loss, 2002-2021



The three-year moving average may represent a more accurate picture of the data trends due to uncertainty in year-to-year comparisons. All figures calculated with a 30 percent minimum tree cover canopy density



WORLD RESOURCES INSTITUTE

□ **DEFORESTATION IS RESPONSIBLE FOR MORE CARBON EMISSIONS THAN THE TRANSPORT SECTOR**

HCVAs - INCLUDING PRIMARY FOREST - ARE VALUED HIGHER BY MARKETS FOR THEIR PARTS AND THE LAND THEY OCCUPY THAN FOR THEIR PRICELESS SERVICES

- **FATALLY EXPOSED BY MARKETS TO EXTRACTIVE / DESTRUCTIVE EXPLOITATION**
- **LOGGING**
- **FOSSIL FUEL, MINERALS AND METAL EXTRACTION**
- **AGRICULTURE**
- **INDUSTRIAL SCALE LICENCED AND ILLEGAL FISHING**

Markets assign far greater value to other natural capital

- **fossil fuels**
- **metals**
- **minerals**
- **rare earths**

WHAT IS BEING DONE?

- ▶ **GOVERNMENTS HAVE PLEDGED TO STOP DEFORESTATION BUT**
 - A. REGULATION DOESN'T WORK – **95%** OF BRAZILIAN FOREST DESTRUCTION IS ILLEGAL BUT ECONOMIC INCENTIVES ARE TOO POWERFUL
 - B. THEY OFTEN REFER TO **NETT** DEFORESTATION TARGETS – WHICH ALLOWS DESTRUCTION & REPLACEMENT WITH BIODIVERSITY-IMPOVERISHED ARBOREAL MONOCULTURE
 - C. THERE IS NO PLAN BIG ENOUGH TO DO IT
 - D. THE **REDD+** SCHEME IS DEEPLY FLAWED
 - E. MANY SMALL SCHEMES AND INITIATIVES DOING EXCELLENT WORK, BUT THEY ARE TOO SMALL, AND OFTEN FRAGILE, INSECURE & LACKING LEGAL CERTAINTY
 - F. THE STATISTICS FOR ONGOING TROPICAL FOREST LOSS SIGNAL THAT THESE INITIATIVES ARE INSUFFICIENT

- ▶ **Q. HOW DO WE CONTINUE TO BENEFIT FROM THESE PRICELESS SERVICES FOR GENERATIONS TO COME?**





INTRODUCTION

Simon M Lamb 2021

How do we empower nature conservation to rapidly prevail over destructive economic actions, and ensure permanence?

Major market failures are afflicting natural resource management, and these can only be addressed effectively and permanently through innovative market-based solutions

This proposal argues for the adoption of a new, market-oriented vehicle designed to support conservation by incentivising better protection of valuable natural resources

The vehicle proposed is scalable and is expected to have dramatic positive sustainable development impacts in a short time

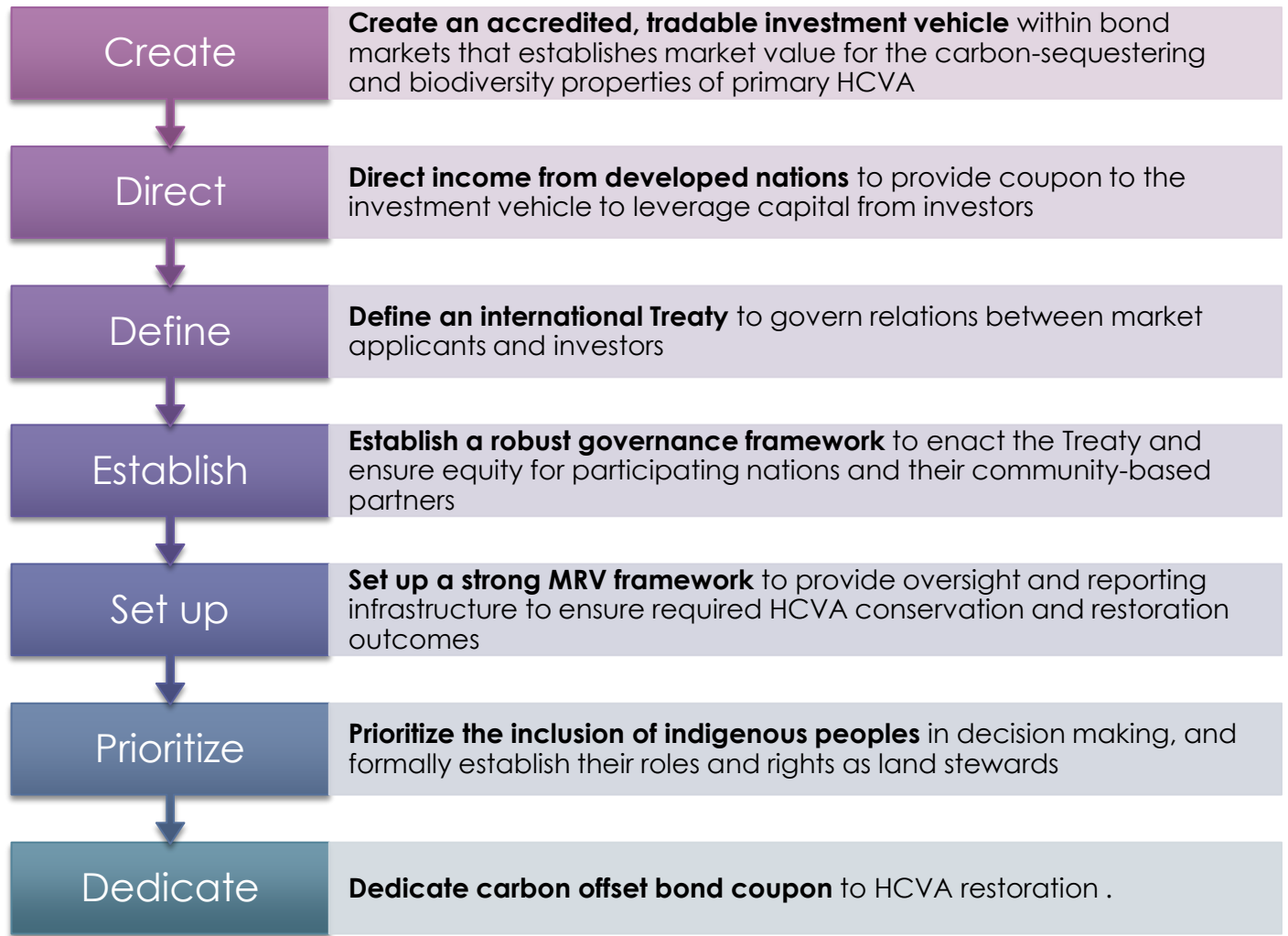


Principle Objectives and Anticipated Impacts

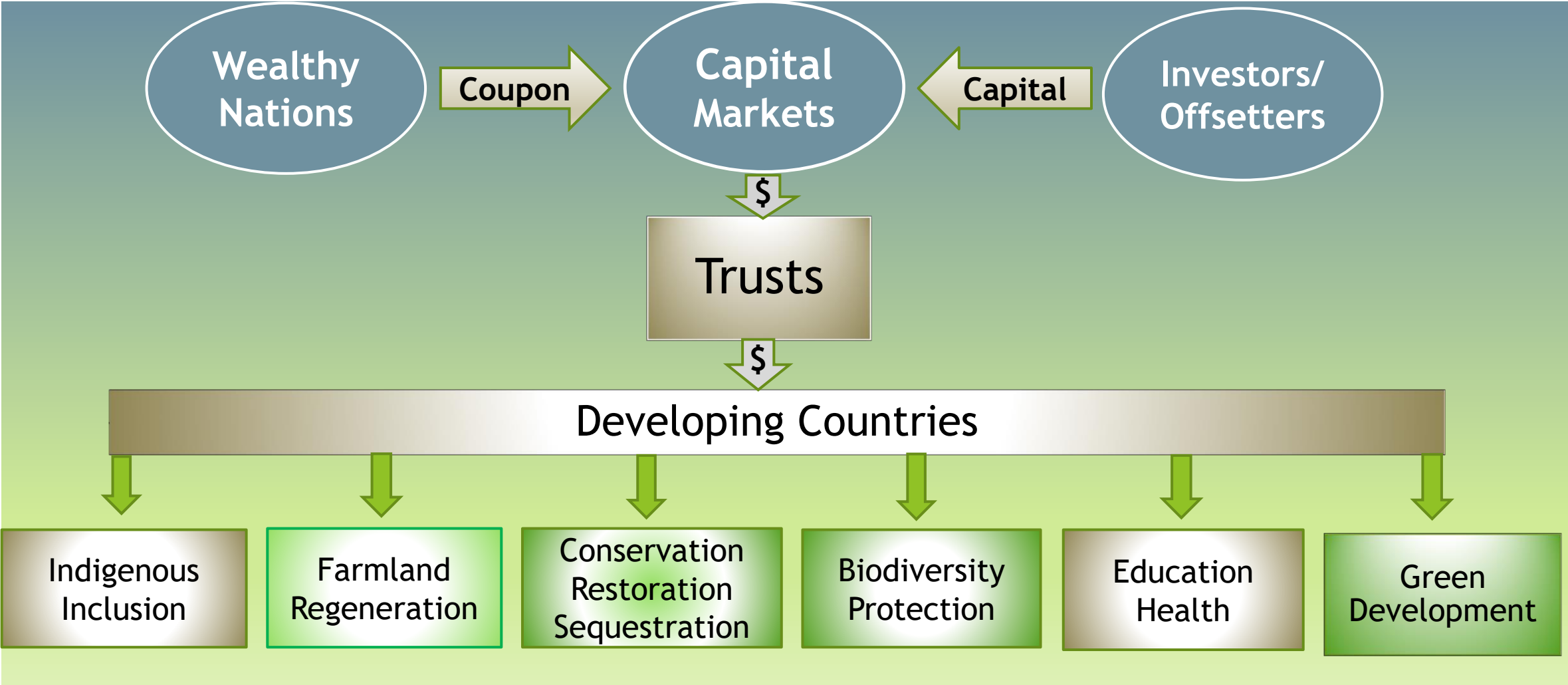
- ▶ **Permanently** protect millions of hectares of HCVA (high conservation value areas) and its biodiversity
- ▶ Ensure substantial **carbon sequestration**
- ▶ Restore and conserve **previously degraded** HCVA
- ▶ Provide **capital to emerging economies** for green development, education and healthcare
- ▶ Formally establish the **rights of indigenous communities**
- ▶ Restore degraded farmland via **regenerative farming**



STEPS TO ACHIEVE OBJECTIVES



Environmental Services Bonds - Inputs / Impacts





CO-BENEFITS



Alters national perceptions towards HCVA from being exploitable wasteland to a valued capital asset

Reverses one of the largest sources of carbon release and incentivises the permanent restoration of carbon capture mechanisms – trees, plants, marshes, seagrasses and mangroves – at scale

Facilitates rapid biodiversity recovery due to its adjacency to undamaged HCVA

Avoids leakage by relocating soil-destructive cropping practices to previously degraded land away from sensitive areas, while transferring to regenerative agricultural practices

Provides debt-free finance to emerging nations to develop green economies, improve social infrastructure, and avoid destructive exploitation of their natural capital for cash

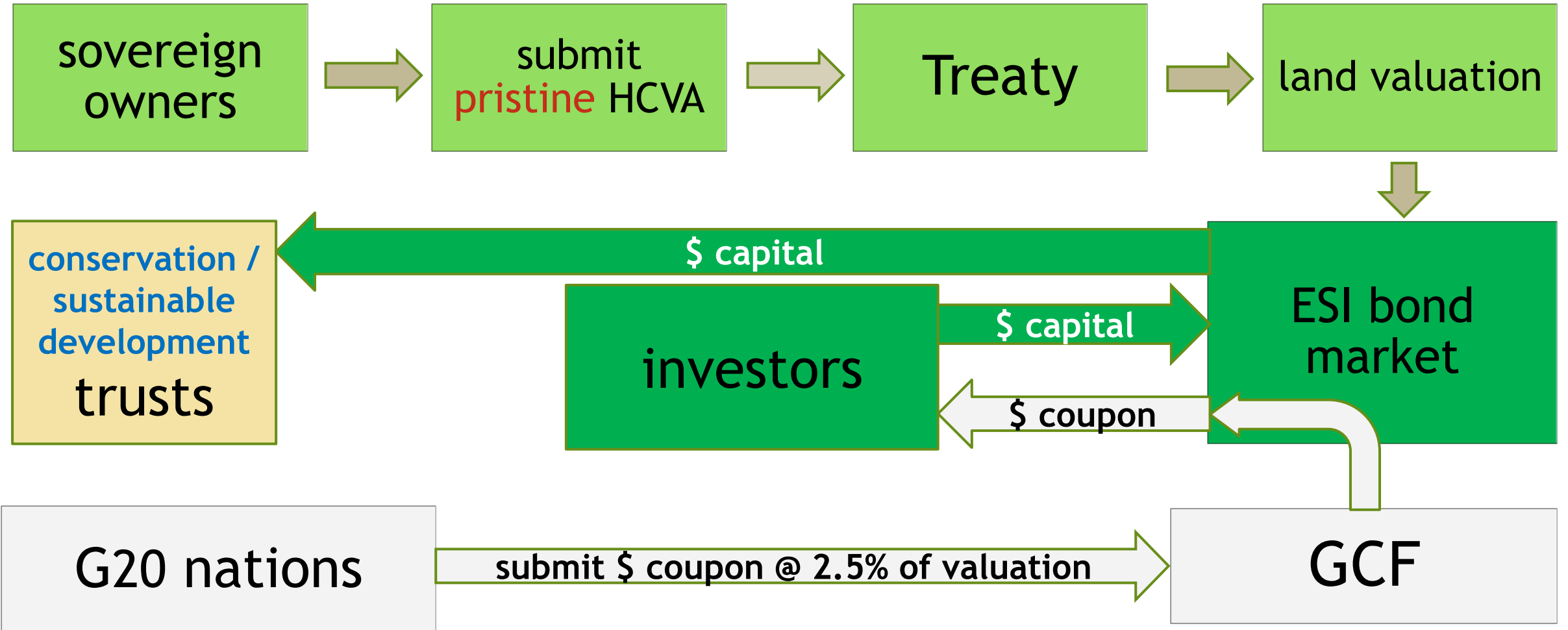
Establishes the world's first formal purchase mechanism for ecosystem services to support HCVA and indigenous communities through innovative, market-based sustainable development activities

Designing the Market

1. Environmental Services Investment Bonds

- ▶ **General**: Establish an Environmental Services (ES) bond market, commencing with the issuance of two primary classes of perpetual sustainability bond (“consoles”)
- ▶ **1. ESIs**: Incorporate the Treaty-bound permanent conservation of specific parcels of sovereign-owned HCVA in pristine condition. ESI investors receive coupon from G20 nations via the GCF and may freely trade bonds
- ▶ Capital is distributed selectively via Trusts and is debt-and-interest free (except in default, when it converts to debt)
- ▶ HCVA are managed under good practice guardianship of indigenous communities

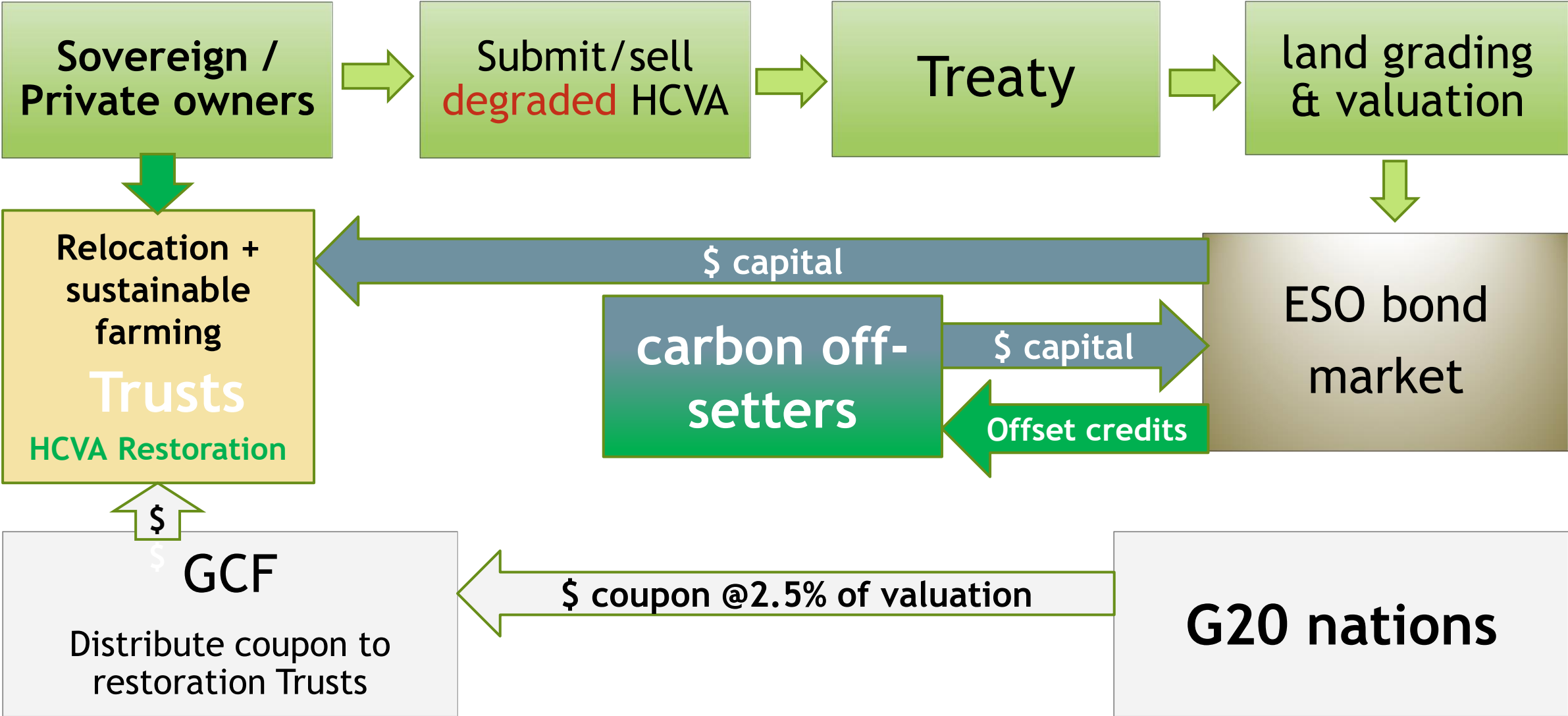
Environmental Services Investment (ESI) Bonds



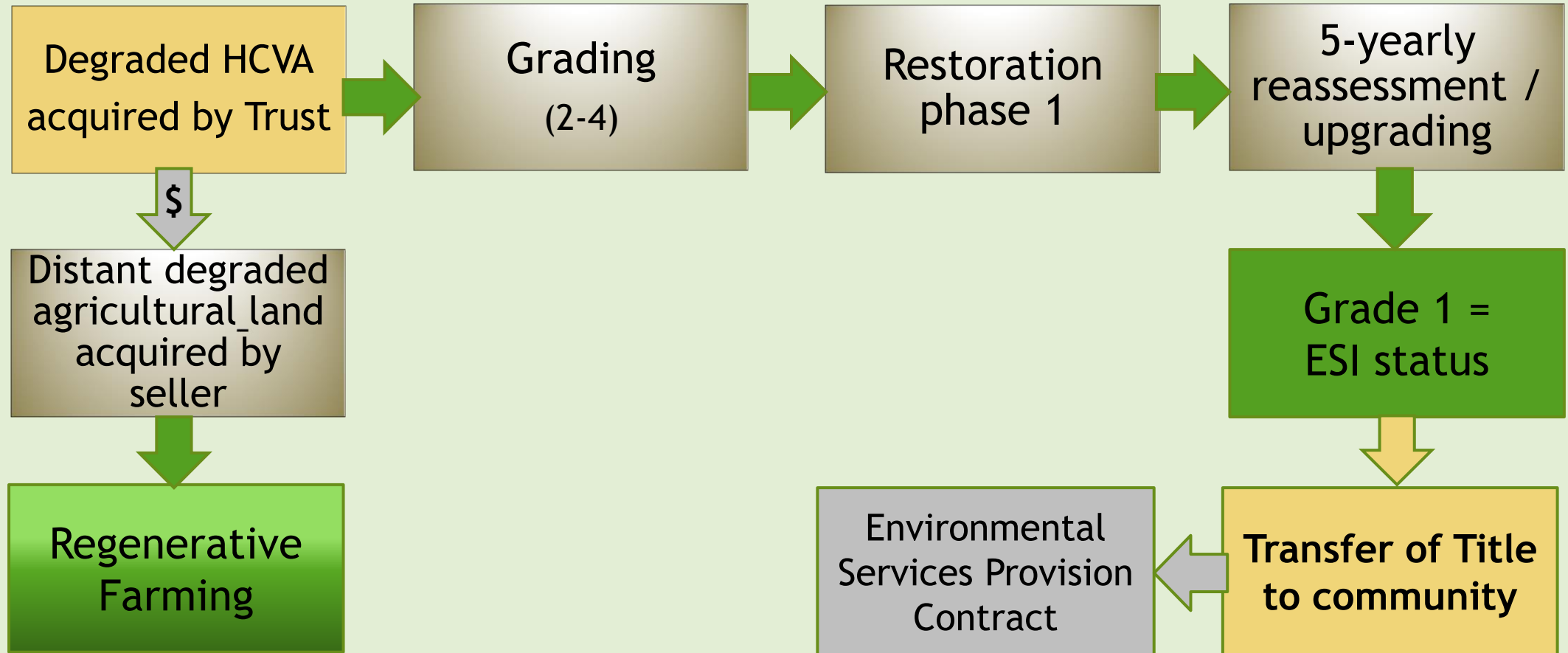
2. Environmental Services Offset Bonds

- ESOs are linked to the regeneration of degraded HCVA
- Companies that have maximised in-house carbon reduction purchase ESOs to offset remaining emissions to achieve net zero
- Capital is allocated to buy farms adjacent to pristine HCVA, relocate environmentally damaging farming activities, and fund conversion to regenerative farming on degraded agricultural land elsewhere
- Coupon is channelled via Trusts for initial restoration of HCVA , followed by long term regeneration by indigenous peoples
- ESO bonds eventually mature into ESIs
- Land ownership transfers to communities
- (VESR bonds allow voluntary participation in the ESO infrastructure)

Environmental Services Offset (ESO) bonds



Environmental Services Offset (ESO) Bonds - Restoration trajectory

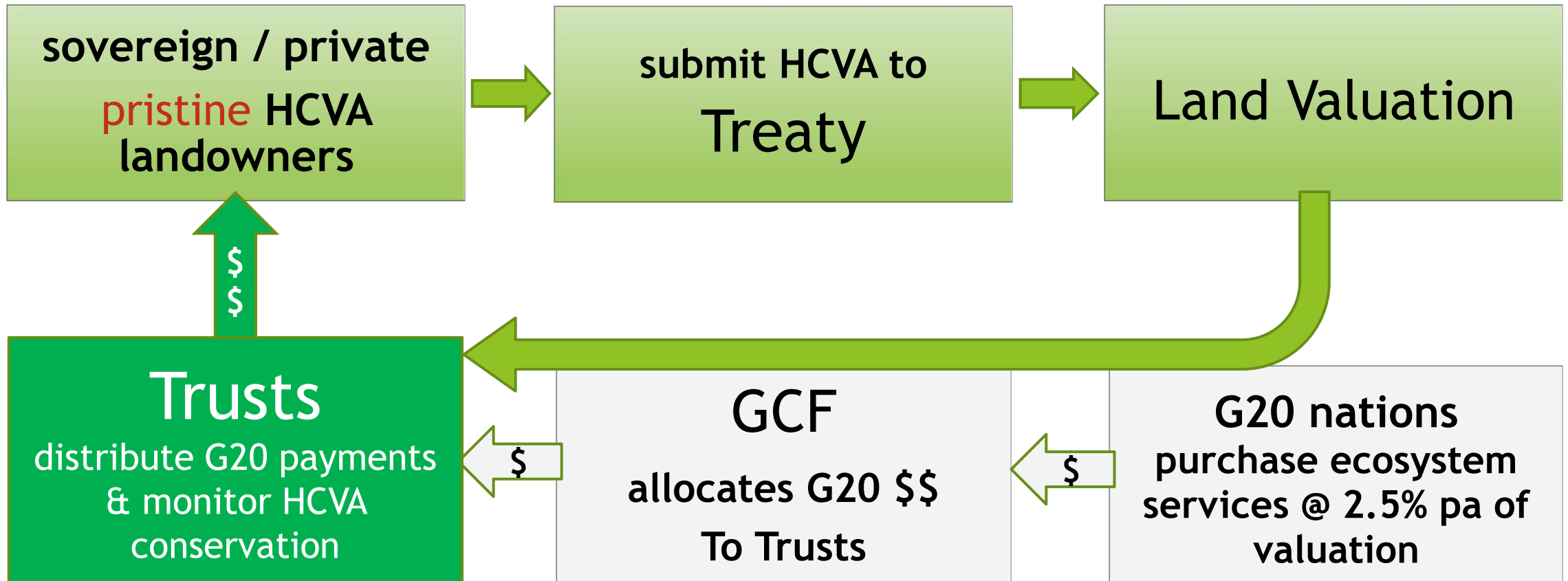


3. Environmental Services Provision Contracts



- ▶ An additional arrangement where annual income is required to meet conservation and socio-economic needs
- ▶ Sovereign or private landowners sell environmental services from pristine HCVA to wealthy nations and/or institutions in return for signing the perpetual conservation Treaty

Environmental Services Provision Contracts



Further Information

For a more detailed explanation of this proposal please refer to Simon Lamb
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August 2022